

Shp July 6 wed

Work Order ID 71398

Thursday, June 30, 2011 3:19:13 PM



~~PRELIMINARY ISSUE~~

Page 1

Item ID: D4420-043

Accept



Setup Start



Revision ID: PRELIM

Item Name: Top Leg Support Assembly

Stop



Start Date: 6/30/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/8/2011 Req'd Qty: 1.00



Customer:

Reference:



Approvals:

Process Plan:

*R*

Date: *11-06-30*

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D4420

*PA1 A 1160707*

100

0.00



Waterjet

FLOW WATER JET

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D 4006-3

Dwg Rev:

Prog Rev:

*2004.063*

2-Deburr if necessary

110

0.00



QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

*N/A*

*PA1*  
*2/2/2011*  
*made on w/o 71403*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A.	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 71398

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Page 2

Item ID: D4420-043

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Top Leg Support Assembly

Start Date: 6/30/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/8/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

140

NC BRAKE

0.00



Brake NC

Memo

0.00

Brake NC

1-Bend as per Dwg D4420

0.00

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 71398

Thursday, June 30, 2011 3:19:13 PM



Page 3

Item ID:	D4420-043	Accept		Setup	Start	
Revision ID:	PRELIM				Stop	
Item Name:	Top Leg Support Assembly					
Start Date:	6/30/2011	Start Qty:	1.00		Cust Item ID:	
Required Date:	7/8/2011	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 <i>N/A Memo</i>	0.00 0.00							
165  Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 <i>OK 7/11/07 Memo</i>	0.00 0.00							
170  QC Quality Control	QC3- Inspect Part Finish <i>Memo</i>	0.00 0.00							

*N/A 7/11/07-05*

*Start Time: 7:30  
Temp 320°F  
Finish Time: 8:00  
M. 7/11/07*

*7/11/07*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



**NOTE:** Date & initial all entries


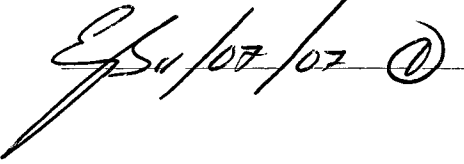


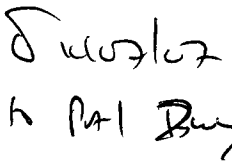

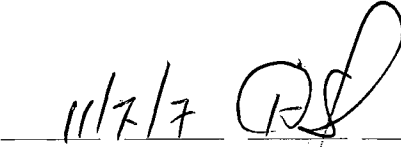
**Work Order ID 71398**

Thursday, June 30, 2011 3:19:13 PM

Page 4

Item ID: D4420-043 Accept  Setup Start   
Revision ID: PRELIM Stop   
Item Name: Top Leg Support Assembly  
Start Date: 6/30/2011 Start Qty: 1.00  Cust Item ID:  
Required Date: 7/8/2011 Req'd Qty: 1.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
175  Small Fab	Memo	0.00							
Small Fab	1-Assemble as per dwg D4420	0.00							
177  QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							
									
180  Packaging	Identify as per dwg & Stock Location: _____	0.00							
Packaging	Memo	0.00							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			






**NOTE:** Date & initial all entries







**Work Order ID 71398**

Thursday, June 30, 2011 3:19:13 PM

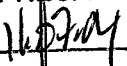


Page 5

Item ID: D4420-043 Accept  Setup Start   
Revision ID: PRELIM Stop   
Item Name: Top Leg Support Assembly  
Start Date: 6/30/2011 Start Qty: 1.00  Cust Item ID:  
Required Date: 7/8/2011 Req'd Qty: 1.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190  QC	QC21- Final Inspection - Work Order Release	0.00						11/7/12	
Quality Control	Memo	0.00							

POSITIVE RECALL

EFFECTIVE  AUTH   
RELEASED  DATE 10/7/07  
POL REV. A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, July 04, 2011 7:50:35 AM

Page 1

Work Order ID: 71398

Parent Item: D4420-043

Parent Item Name: Top Leg Support Assembly





Start Date: 6/30/2011

Required Date: 7/8/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP revA 11.06.30 new issue EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4006-3  Channel		Manufactured	No			100	Each	0.0000	1	1			
M2024T3S.063  2024-T3 .063 sheet		Purchased	No				sf	252.3800		0.3			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
MAT022 252.38													
117018 26.88													
117392 225.5													
MS20426AD3-4  RIVET		Purchased	No			100	Each	5,142.000	2	2			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
ST316 5142													
104374 1142													
110398 4000													
MS21059L4  Nutplate		Purchased	No			100	Each	38.0000	1	1			
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
ST301 38													
117887 38													

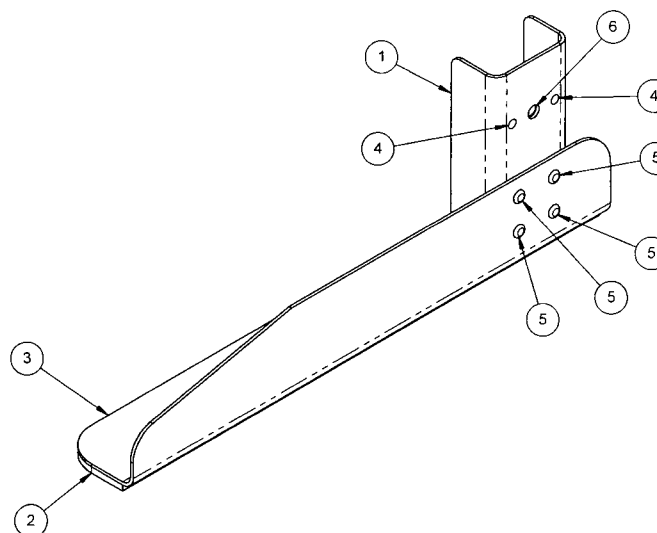
*Handwritten notes and signatures:*  
 OT 11/11  
 N/A  
 71403  
 N/A  
 71403

*Handwritten notes:*  
 SB 4607106  
 N/A  
 4607106

*Handwritten notes:*  
 SB 4607106  
 SB  
 SB 4607106

*Handwritten note:*  
 1

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4420-041	TOP SUPPORT ASSY
1	1	<del>D4006-3</del>	CHANNEL
2	1	<del>D4006-5</del> ✓	FOAM
3	1	D4420-1 ✓	ANGLE
4	2	<del>MS20426AD3-4</del>	RIVET
5	4	MS20470AD4-5	RIVET
6	1	MS21059-4	ANCHOR NUT



**D4420-041 TOP SUPPORT ASSY**

*W/O 7/398*

**PRELIMINARY ISSUE**

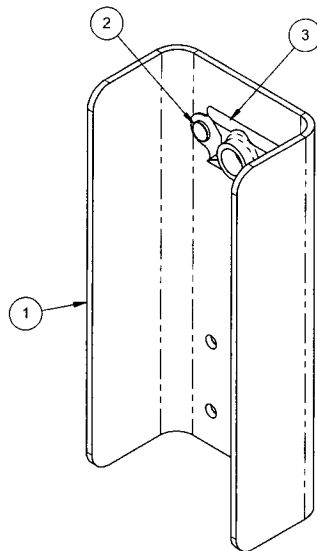
11.06.22

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDETEX" (4.3.5.6) PER DART QSI 005 4.3  
BEFORE INSTALLATION OF D4006-5 FOAM AND MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-041" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.38 lbs

PA1	NEW ISSUE	MB	11.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4420	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		TOP SUPPORT ASSY	NTS
DATE	11.06.22	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

ITEM	QTY -043	P/N	DESCRIPTION
	X	D4420-043	TOP LEG SUPPORT ASSY
1	1	D4006-3	CHANNEL
2	2	MS20426AD3-4	RIVET
3	1	MS21059-4	ANCHOR NUT



**D4420-043 TOP LEG SUPPORT ASSY**

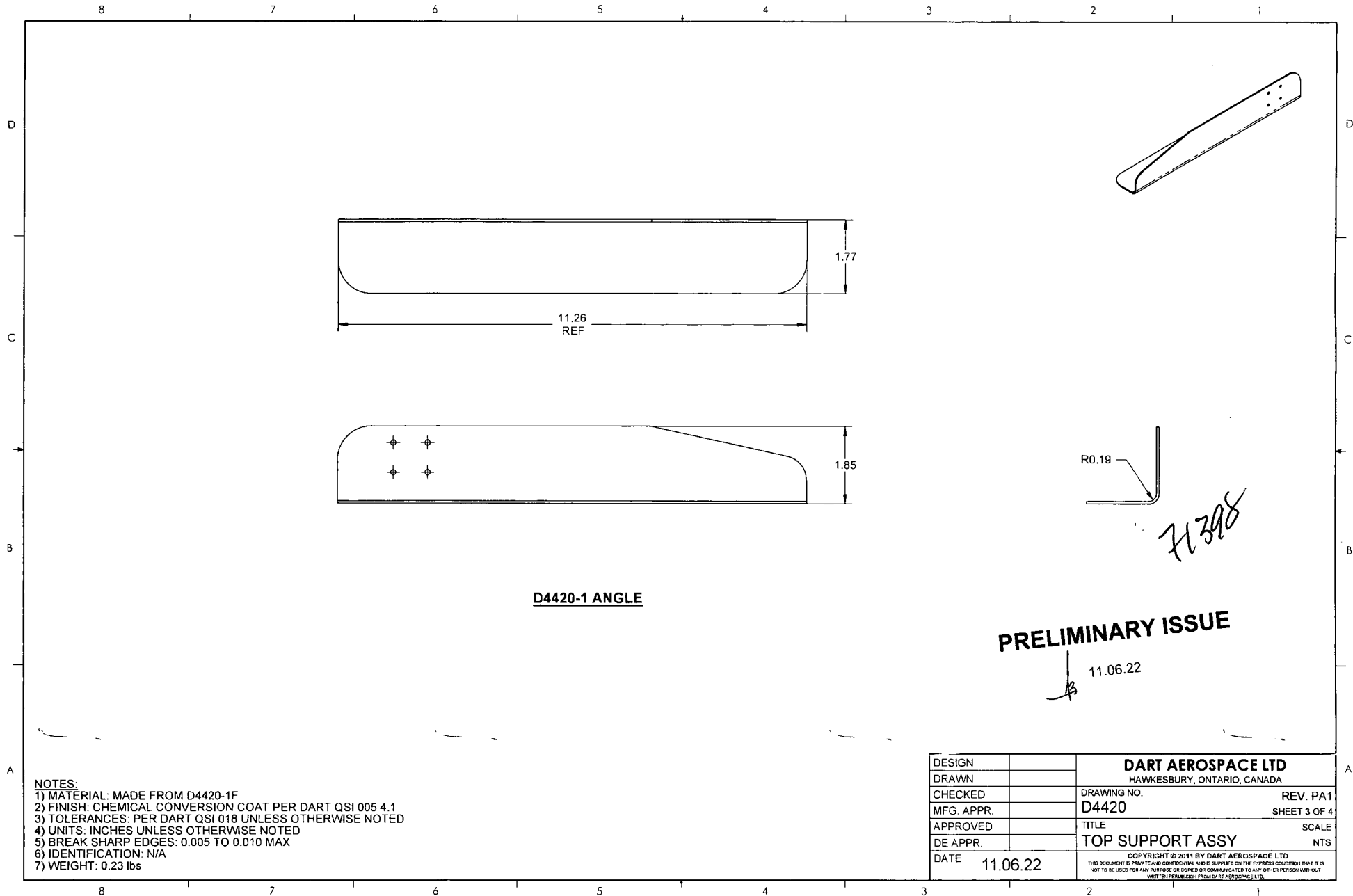
**PRELIMINARY ISSUE**

11.06.22

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANDEX" (4.3.5.6) PER DART QSI 005 4.3 BEFORE INSTALLATION OF MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-043" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.09 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4420	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		TOP SUPPORT ASSY	NTS
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**NOTES:**

- 1) MATERIAL: MADE FROM D4420-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.23 lbs

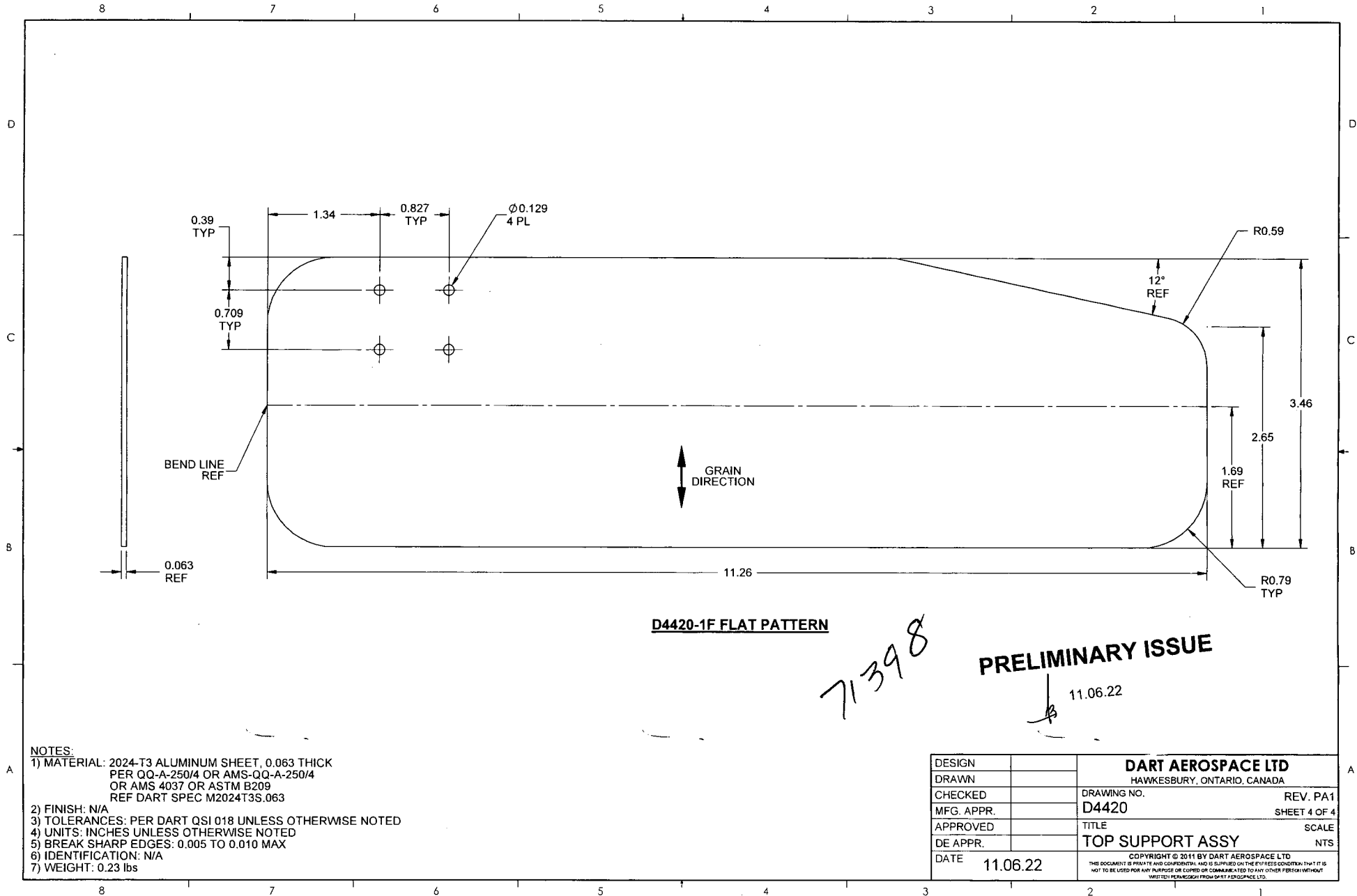
**D4420-1 ANGLE**

**PRELIMINARY ISSUE**

11.06.22

R0.19

*Handwritten signature: H398*

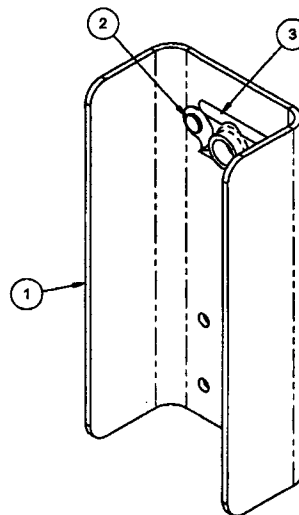


NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK  
PER QQ-A-250/4 OR AMS-QQ-A-250/4  
OR AMS 4037 OR ASTM B209  
REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.23 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		<b>D4420</b>	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>TOP SUPPORT ASSY</b>	NTS
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ITEM	QTY -043	P/N	DESCRIPTION
	X	D4420-043	TOP LEG SUPPORT ASSY
1	1	D4006-3	CHANNEL
2	2	MS20426AD3-4	RIVET
3	1	MS21059L4	ANCHOR NUT



**D4420-043 TOP LEG SUPPORT ASSY**

71398

**RELEASED**  
2011-07-06

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANTEX" (4.3.5.6) PER DART QSI 005 4.3  
BEFORE INSTALLATION OF MS21059-4 ANCHOR NUTS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4420-043" AND B/N PER QSI 044 6.1
- 7) WEIGHT: 0.09 lbs

DESIGN	JK	<b>DART AEROSPACE LTD</b>	
DRAWN	JK	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JK	DRAWING NO.	REV. A
MFG. APPR.	JK	D4420	SHEET 2 OF 4
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